

Common - Jumper
 Anode - 1 & 2
 Cathode - 2 & 3

5 VDC
 Power In

| | | |
|--------------------------------------|---------------------------|----------|
| Title | | |
| 4-Way Traffic Signals v4D - CA or CC | | |
| Size | Number - 4D - SN74AC86N | Rev |
| 8.5x11 | Com Anode or Cathode-5VDC | 3 |
| Date - 09-03-2019 | | Drawn by |
| Filename: v4D-CA or CC | | Sheet 1 |

| # | Quantity | RefDes | Value | Name | Supplier | Part Num |
|----|----------|--------|----------------|----------------|----------|-----------------|
| 1 | 1 | C1 | 220uf | CAP250RP | Digikey | 493-1082-ND |
| 2 | 1 | C2 | 10nf | CAP_NONPOL | Digikey | 445-175393-1-ND |
| 3 | 1 | D1 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 4 | 1 | D2 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 5 | 1 | D3 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 6 | 1 | D4 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 7 | 1 | D5 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 8 | 1 | D6 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 9 | 1 | D7 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 10 | 1 | D8 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 11 | 1 | D9 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 12 | 1 | D10 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 13 | 1 | D11 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 14 | 1 | D12 | 1N4148 | DIODE_1N4148 | Digikey | 1N4148FSCT-ND |
| 15 | 1 | D13 | 5mm Round | LED-5R_Blue | Digikey | 67-1751-ND |
| 16 | 1 | J1 | Term Block (2) | HDR-1x2 | Digikey | ED10561-ND |
| 17 | 1 | J2 | Term Block (4) | HDR-1x4 | Digikey | ED10563-ND |
| 18 | 1 | J3 | Term Block (4) | HDR-1x4 | Digikey | ED10563-ND |
| 19 | 1 | J4 | Term Block (4) | HDR-1x4 | Digikey | ED10563-ND |
| 20 | 1 | J5 | Term Block (4) | HDR-1x4 | Digikey | ED10563-ND |
| 21 | 1 | J6 | Term Block (3) | HDR-1x3 | Digikey | S102EC-03--ND |
| 22 | 1 | R1 | 50K | RES_ADJUSTABLE | Digikey | 490-2889-ND |
| 23 | 1 | R2 | 1K | RES400 | Digikey | CF14JT1K00CT-ND |
| 24 | 1 | R3 | 3.3K | RES400 | Digikey | CF14JT3K30CT-ND |
| 25 | 1 | R4 | 100K | RES400 | Digikey | CF14JT100KCT-ND |
| 26 | 1 | R5 | 220R | RES400 | Digikey | CF14JT220RCT-ND |
| 27 | 1 | R6 | 220R | RES400 | Digikey | CF14JT220RCT-ND |
| 28 | 1 | R7 | 220R | RES400 | Digikey | CF14JT220RCT-ND |
| 29 | 1 | R8 | 220R | RES400 | Digikey | CF14JT220RCT-ND |
| 30 | 1 | R9 | 220R | RES400 | Digikey | CF14JT220RCT-ND |
| 31 | 1 | R10 | 10K | RES400 | Digikey | CF14JT10K0CT-ND |
| 32 | 1 | R11 | 10K | RES400 | Digikey | CF14JT10K0CT-ND |
| 33 | 1 | R12 | 10K | RES400 | Digikey | CF14JT10K0CT-ND |
| 34 | 1 | R13 | 10K | RES400 | Digikey | CF14JT10K0CT-ND |
| 35 | 1 | R14 | 10K | RES400 | Digikey | CF14JT10K0CT-ND |
| 36 | 1 | R15 | 10K | RES400 | Digikey | CF14JT10K0CT-ND |
| 37 | 1 | U1 | 555 Timer | NE555P | Digikey | 296-1411-5-ND |
| 38 | 1 | U2 | Decade Counter | CD4017BE | Digikey | 296-2037-5-ND |
| 39 | 1 | U3 | 4CH XOR 14DIP | SN74AC86N | Digikey | 296-4345-5-ND |
| 40 | 1 | U4 | 4CH XOR 14DIP | SN74AC86N | Digikey | 296-4345-5-ND |
| | 40 | | | | | |

If you would like sockets for your ICs, Add Parts Listed Below to Your Order

- 1 - 8 Pin Dip Socket for NE555P = Digikey - AE9986-ND
- 2 - 14 Pin Dip Socket for SN74AC86 = Digikey - AE9989-ND
- 1 - 16 Pin Dip Socket for CD4017BE = Digikey - AE9992-ND

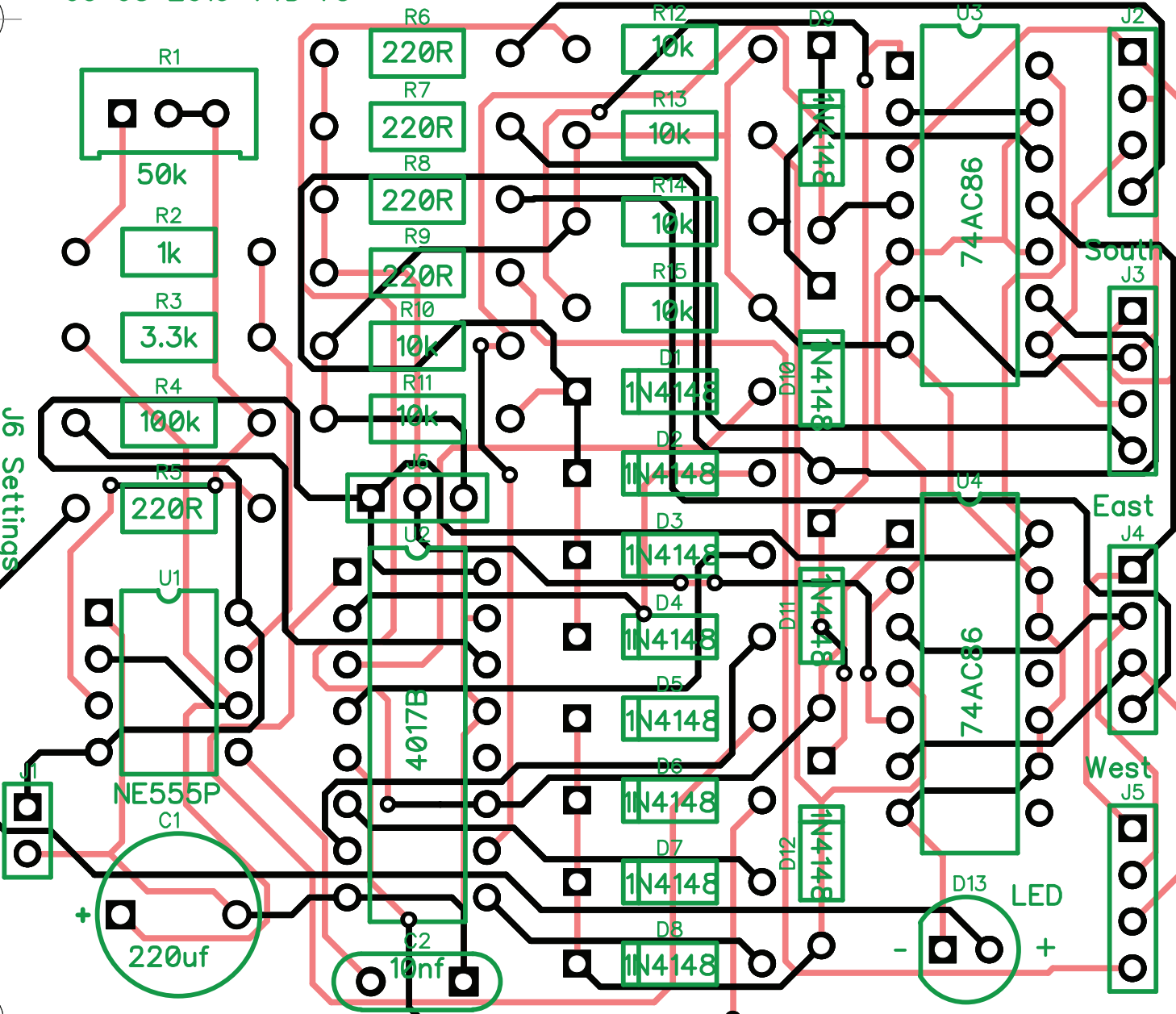
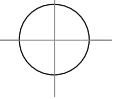
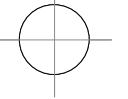
09-03-2019 v4D r3

76.994

96.09

J6 Settings
2-3 Com Cathode
1-2 Com Anode

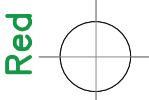
+ 5 VDC
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4-Way Traffic Signal Controller (Common Anode or Cathode)

76.994

96.09



Red
Yel
Grn
Com

Red
Yel
Grn
Com

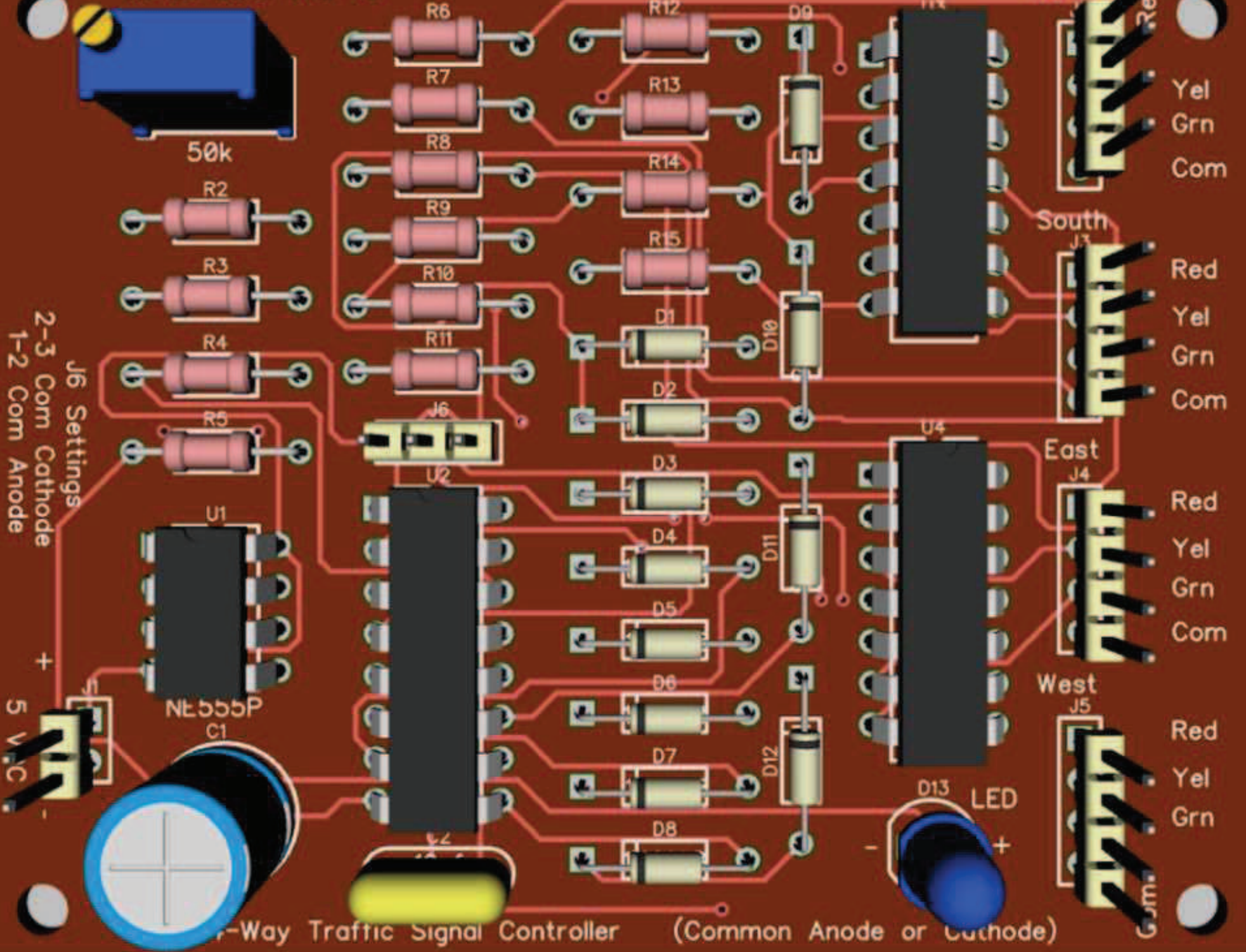
Red
Yel
Grn
Com

Red
Yel
Grn



Com

09-03-2019 v4D r3



J6 Settings
2-3 Com Cathode
1-2 Com Anode

NE555P
C1

50k

R2

R3

R4

R5

U1

R6

R7

R8

R9

R10

R11

J6

U2

R12

R13

R14

R15

D1

D2

D3

D4

D5

D6

D7

D8

D9

D10

D11

D12

U4

D13 LED

North

South

East

West

Yel

Grn

Com

Red

Yel

Grn

Com

Red

Yel

Grn

Com

Red

Yel

Grn

4-Way Traffic Signal Controller (Common Anode or Cathode)